GenCore version 5.1.3

OM protein - protein search, using sw model

Run on: January 3, 2003, 13:01:31 ; Search time 13.6957 Seconds
(without alignments)
97.294 Million cell updates/sec

Title: US-09-801-784A-36
Perfect score: 50
Sequence: 1 PSAVALTYSP 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 908470

[redacted]imum DB seq length: 0
[redacted]imum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	50	100.0	10	19	AAW53301	CS4-CFA/I family s
2	50	100.0	36	18	AAW17903	Immunogenic consen
3	50	100.0	36	19	AAW53307	CS4-CFA/I family s
4	50	100.0	37	18	AAW24221	Peptide fragment f
5	50	100.0	37	18	AAW09420	Immunogenic peptid
6	50	100.0	37	19	AAW48316	Escherichia coli f
7	50	100.0	38	21	AAB06210	Escherichia coli c
8	44	88.0	36	18	AAW17904	Immunogenic consen
9	44	88.0	37	18	AAW24222	Peptide fragment f
10	44	88.0	37	18	AAW17906	Peptide CS1 from d
11	44	88.0	148	18	AAW17912	Peptide CS1 from d
12	44	88.0	171	13	AAR21313	Sequence of a majo
13	42	84.0	37	18	AAW24223	Peptide fragment f
14	42	84.0	37	18	AAW17907	Peptide CS4 from d
15	42	84.0	117	18	AAW17913	Peptide CS4 from d
16	42	84.0	167	23	AAM50340	ETEC CS4 pilus Csa
17	40	80.0	10	13	AAR28320	Antigenic syntheti
18	40	80.0	37	18	AAW17905	Peptide CFA/I from
19	40	80.0	147	18	AAW17911	Peptide CFA/I from
20	40	80.0	170	19	AAW38341	E. coli colonisati
21	39	78.0	8	19	AAW53297	CS4-CFA/I family s
22	39	78.0	8	19	AAW53299	CS4-CFA/I family s
23	39	78.0	55	22	AAO09916	Human polypeptide
24	39	78.0	76	22	AAM25886	Human protein sequ
25	37	74.0	86	22	AAU42167	Propionibacterium
26	36.5	73.0	194	22	AAU28008	Human contig polyp
27	36	72.0	8	19	AAW53298	CS4-CFA/I family s
28	36	72.0	8	19	AAW48315	CS4-CFA/I family s
29	36	72.0	39	22	AAO03750	Human polypeptide
30	36	72.0	41	22	AAO11507	Human polypeptide
31	36	72.0	55	22	ABB16725	Human nervous syst
32	36	72.0	58	22	AAO11887	Human polypeptide
33	36	72.0	67	21	AAY52251	S. pyogenes ygjD p
34	36	72.0	74	22	AAU31256	Novel human secret
35	36	72.0	86	22	AAO12906	Human polypeptide
36	36	72.0	104	22	AAO02380	Human polypeptide
37	36	72.0	342	21	AAY52209	Streptococcus pyog
38	36	72.0	342	23	ABP27876	Streptococcus poly
39	35	70.0	8	19	AAW53300	CS4-CFA/I family s
40	35	70.0	36	18	AAW24224	Peptide fragment f
41	35	70.0	36	18	AAW17908	Peptide CS17 from
42	35	70.0	40	18	AAW17914	Peptide CS17 from
43	35	70.0	44	21	AAB29912	Human secreted pro
44	35	70.0	51	18	AAW17915	Peptide PCF0166 fr
45	35	70.0	114	23	ABP05011	Human ORFX protein

ALIGNMENTS

RESULT 1
AAW53301
ID AAW53301 standard; peptide; 10 AA.
XX
AC AAW53301;
XX
DT 03-JUL-1998 (first entry)
XX
DE CS4-CFA/I family specific antibody responsive peptide #36.
XX
KW Escherichia coli; CS4-CFA/I family; antibody; immunisation; ETEC;
KW enterotoxigenic; immune response.
XX
OS Synthetic.
OS Escherichia coli.
XX
PN WO9805348-A1.
XX
PD 12-FEB-1998.
XX
PF 01-AUG-1997; 97WO-US13476.
XX
PR 05-AUG-1996; 96US-0023145.
PR 02-AUG-1996; 96US-0023076.
XX
PA (USSA) US DEPT OF THE ARMY.
XX
PI Cassels F, Loomis-Price L;
XX
DR WPI; 1998-145348/13.
XX
PT Peptide(s) responsive to antibodies against Escherichia coli
PT CS4-CFA/I family proteins - are subunits of consensus peptide useful

PT for immunisation, and consequent antibody compositions, useful in
PT assays and treatment of infection
XX
PS Claim 2; Page 14; 19pp; English.
XX
CC The present sequence represents a peptide responsive to antibodies
CC against Escherichia coli CS4-CFA/I family proteins. The peptide and
CC compositions containing such peptides are useful for immunisation to
CC raise antibodies to organisms producing the CS4-CFA/I family of
CC proteins. The CS4-CFA/I family belong to the enterotoxigenic (ETEC)
CC class of Escherichia coli, one of five classes of E. coli causing
CC diarrhoea. ETEC are the most common class and cause high infant
CC mortality and illness in adult travellers in developing countries. The
CC peptides are also useful to determine whether individual animals have
CC antibodies to ETEC E. coli. The antibody compositions can be used in
CC assays to detect organisms bearing the CS4-CFA/I family proteins, in
CC which a culture of organisms is contacted with the composition for
CC sufficient time for interaction to occur, and the culture is examined
CC to determine if a CS4-CFA/I family protein/antibody complex has formed.
CC The antibody compositions can also be used to treat, or immunise a
CC susceptible host against, illness arising from infection with bacteria
CC bearing CS4-CFA/I family proteins, by administering a bacteria-
CC agglutinating effective amount, optionally with an adjuvant.
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 50; DB 19; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0031;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PSAVALTYSP 10
||||||||||
Db 1 PSAVALTYSP 10

RESULT 2
AAW17903
ID AAW17903 standard; peptide; 36 AA.
XX
AC AAW17903;
XX
DT 25-JUL-1997 (first entry)
XX
DE Immunogenic consensus peptide against E.coli CS4-CFA/1.
XX
KW Immunisation; fimbrial protein; colonisation factor antigen;
KW antibody.
XX
OS Escherichia coli.
OS Synthetic.
XX
PN WO9638171-A1.
XX
PD 05-DEC-1996.
XX
PF 03-JUN-1996; 96WO-US08730.
XX
PR 02-JUN-1995; 95US-0460617.
XX
PA (USSA) US DEPT OF THE ARMY.
XX
PI Anderson J, Carter JM, Cassels F;
XX
DR WPI; 1997-034101/03.
XX
PT New consensus peptide from fimbrial proteins of the E. coli family
PT CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
PT against infection by bacteria of this family
XX
PS Claim 1; Page 11; 17pp; English.
XX
CC The present sequence is a consensus sequence that was constructed
CC from the highly conserved N-terminal region of fimbrial proteins from
CC CFA/I, CS1, CS2, CS4, CS17 and PCF 0166, and was shown to generate
CC antibodies against all members of the family. The consensus sequence
CC also contains both B and T cell epitopes. It can be used to immunise
CC against disease caused by enterotoxic E. coli of the family CS4-CFA/I.
CC Also antibodies raised against the E. coli CS4-CFA/I family can be
CC used as diagnostic reagents to identify antigens.
XX
SQ Sequence 36 AA;

Query Match 100.0%; Score 50; DB 18; Length 36;
Best Local Similarity 100.0%; Pred. No. 0.013;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PSAVALTYSP 10
||||||||||
Db 26 PSAVALTYSP 35

RESULT 3
AAW53307
ID AAW53307 standard; peptide; 36 AA.
XX
AC AAW53307;
XX
DT 03-JUL-1998 (first entry)
XX
DE CS4-CFA/I family specific antibody responsive consensus peptide.
XX
KW Escherichia coli; CS4-CFA/I family; antibody; immunisation; ETEC;
KW enterotoxigenic; immune response.
XX
OS Synthetic.
OS Escherichia coli.
XX
PN WO9805348-A1.
XX
PD 12-FEB-1998.
XX
PF 01-AUG-1997; 97WO-US13476.
XX
PR 05-AUG-1996; 96US-0023145.
PR 02-AUG-1996; 96US-0023076.
XX
PA (USSA) US DEPT OF THE ARMY.
XX
PI Cassels F, Loomis-Price L;
XX
DR WPI; 1998-145348/13.
XX
PT Peptide(s) responsive to antibodies against Escherichia coli
PT CS4-CFA/I family proteins - are subunits of consensus peptide useful
PT for immunisation, and consequent antibody compositions, useful in
PT assays and treatment of infection
XX
PS Example 2; Page 6; 19pp; English.
XX
CC The present sequence represents a peptide responsive to antibodies
CC against Escherichia coli CS4-CFA/I family proteins. The peptide and
CC compositions containing such peptides are useful for immunisation to
CC raise antibodies to organisms producing the CS4-CFA/I family of
CC proteins. The CS4-CFA/I family belong to the enterotoxigenic (ETEC)
CC class of Escherichia coli, one of five classes of E. coli causing
CC diarrhoea. ETEC are the most common class and cause high infant
CC mortality and illness in adult travellers in developing countries. The
CC peptides are also useful to determine whether individual animals have
CC antibodies to ETEC E. coli. The antibody compositions can be used in
CC assays to detect organisms bearing the CS4-CFA/I family proteins, in
CC which a culture of organisms is contacted with the composition for
CC sufficient time for interaction to occur, and the culture is examined
CC to determine if a CS4-CFA/I family protein/antibody complex has formed.
CC The antibody compositions can also be used to treat, or immunise a
CC susceptible host against, illness arising from infection with bacteria
CC bearing CS4-CFA/I family proteins, by administering a bacteria-

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CC   agglutinating effective amount, optionally with an adjuvant.
XX
SQ   Sequence   36 AA;

  Query Match            100.0%;  Score 50;  DB 19;  Length 36;
  Best Local Similarity  100.0%;  Pred. No. 0.013;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 PSAVALTYSP 10
          ||||||||||
Db     26 PSAVALTYSP 35


RESULT 4
AAW24221
ID   AAW24221 standard; peptide; 37 AA.
XX
AC   AAW24221;
XX
DT   17-MAR-1998  (first entry)
XX
DE   Peptide fragment from Escherichia coli CFA/1.

KW   T-lymphocyte epitope; diagnosis; antigen; infectious disease;
KW   delayed-type hypersensitivity assay; vaccine development.
XX
OS   Escherichia coli.
XX
PN   WO9727462-A2.
XX
PD   31-JUL-1997.
XX
PF   27-JAN-1997;   97WO-US01084.
XX
PR   26-JAN-1996;   96US-0010679.
XX
PA   (USSA ) US DEPT ARMY GOVERNMENT US ARMY MEDICAL.
XX
PI   Brix DL,  Sitz KV;
XX
DR   WPI; 1997-393814/36.
XX
PT   Peptide fragments containing antigen epitope(s) used to trace
PT   diseases - used in a delayed-type hypersensitivity assay, for in
PT   vivo mapping of human T-lymphocyte epitope(s) e.g. for diagnosis,
PT   vaccine development etc
XX
PS   Disclosure; Page 10; 14pp; English.
XX
CC   Peptides AAW24221-6 from Escherichia coli may be used in the method
CC   of the invention which relates to the tracing of sources of infectious
CC   diseases. The method comprises preparing a short (9-50 amino acid)
CC   peptide containing at least one non-conserved epitope of an organism,
CC   injecting a composition containing the peptide intradermally into a test
CC   subject in a delayed-type hypersensitivity (DTH) assay and observing the
CC   injection site at intervals for induration. The method allows the
CC   T-lymphocyte epitopes of a large antigen to be determined in vivo in
CC   humans. The method is useful in medicine e.g. in diagnosis, monitoring
CC   and treatment design for infectious disease exposure, active autoimmune
CC   disease, allergic diseases and malignancy. It is especially useful for
CC   tracing infectious diseases e.g HIV, particularly when a sequence is
CC   present only in certain strains of an organism, and developing suitable
CC   vaccines. Vaccinated individuals can also be tested to verify protection
CC   against a particular strain. The method allows in vivo mapping of
CC   T-lymphocyte epitopes, not previously possible. The method is simpler,
CC   more rapid and more sensitive. It can also be applied in a variety of
CC   environments e.g. undeveloped regions since specialist equipment is not
CC   required.
XX
SQ   Sequence   37 AA;

  Query Match            100.0%;  Score 50;  DB 18;  Length 37;
  Best Local Similarity  100.0%;  Pred. No. 0.013;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 PSAVALTYSP 10
          ||||||||||
Db     26 PSAVALTYSP 35


RESULT 5
AAW09420
ID   AAW09420 standard; peptide; 37 AA.
XX
AC   AAW09420;
XX
DT   25-JUL-1997  (first entry)
XX
DE   Immunogenic peptide against E.coli CS4-CFA/1.
XX
KW   Immunisation; fimbrial protein; colonisation factor antigen;
KW   antibody.
XX
OS   Escherichia coli.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  1
FT                   /note= "The cysteine residue was added to the
FT                          consensus peptide to allow bonding with
FT                          iodoacetylated albumin or toxoid, providing
FT                          conjugated proteins"
FT   Peptide         2..37
FT                   /label= Consensus_sequence
XX
PN   WO9638171-A1.
XX
PD   05-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US08730.
XX
PR   02-JUN-1995;   95US-0460617.
XX
PA   (USSA ) US DEPT OF THE ARMY.
XX
PI   Anderson J,  Carter JM,  Cassels F;
XX
DR   WPI; 1997-034101/03.
XX
PT   New consensus peptide from fimbrial proteins of the E. coli family
PT   CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
PT   against infection by bacteria of this family
XX
PS   Claim 2; Page 11; 17pp; English.
XX
CC   A consensus sequence was constructed from the highly conserved
CC   N-terminal region of fimbrial proteins from CFA/I, CS1, CS2, CS4,
CC   CS17 and PCF 0166, and was shown to generate antibodies against
CC   all members of the family. The consensus sequence also contains
CC   both B and T cell epitopes. The present sequence represents the
CC   consensus sequence with a cysteine residue at the N-terminus of
CC   the peptide to allow conjugated peptides to be produced. This allows
CC   greater increases in antigenicity when used to immunise against
CC   disease caused by enterotoxic E. coli of the family CS4-CFA/I.
CC   Also antibodies raised against the E. coli CS4-CFA/I family can be
CC   used as diagnostic reagents to identify antigens.
XX
SQ   Sequence   37 AA;

  Query Match            100.0%;  Score 50;  DB 18;  Length 37;
  Best Local Similarity  100.0%;  Pred. No. 0.013;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 PSAVALTYSP 10
          ||||||||||
Db     27 PSAVALTYSP 36
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RESULT 6
AAW48316
ID   AAW48316 standard; peptide; 37 AA.
XX
AC   AAW48316;
XX
DT   02-JUL-1998  (first entry)
XX
DE   Escherichia coli family CS4-CFA/I immunogen consensus peptide.
XX
KW   Monoclonal antibody; agglutinate; Escherichia coli; prophylaxis;
KW   CS4-CFA/I family protein; diarrhoea.
XX
OS   Synthetic.
OS   Escherichia coli.
XX
PN   WO9805687-A1.
XX
PD   12-FEB-1998.
XX
PF   01-AUG 1997;   97WO-US13477.
XX
PR   02-AUG-1996;   96US-0023075.
XX
PA   (USSA ) US DEPT OF THE ARMY.
PA   (VIRI-) VIRION SYSTEMS INC.
XX
PI   Cassels F, Lees A, Schuman R;
XX
DR   WPI; 1998-145553/13.
XX
PT   Monoclonal antibody agglutinating Escherichia coli with CS4-CFA/I
PT   family protein - is useful in assays and for treatment or
PT   prophylaxis against illness arising from infection with E. coli
PT   bearing CS4-CFA/I family proteins
XX
PS   Disclosure; Page 3; 14pp; English.
XX
CC   The present sequence represents an Escherichia coli family CS4-CFA/I
CC   immunogen consensus peptide. The present invention describes a new
CC   monoclonal antibody which binds exclusively and specifically to SAVALTYS,
CC   agglutinates bacteria bearing CS4-CFA/I family proteins and is produced
CC   by hybridoma 96-109FE8 IH11. The monoclonal antibody can agglutinate
CC   members of the Escherichia coli family CSA-CFA/I, since it was raised to
CC   a consensus peptide known to raise antibodies against proteins of all
CC   the CSA-CFA/I family. E. coli causing diarrhoea are grouped into five
CC   classes, of which enterotoxigenic (ETEC), to which the CS4-CFA/I family
CC   belong, are the most common and pose the greatest risk to travellers.
CC   ETEC E. coli cause high infant mortality and illness in adult travellers
CC   in developing countries. The antibody is useful in assays to detect/
CC   identify organisms bearing CS4-CFA family proteins, by contacting
CC   cultures of organisms for sufficient time for interaction, and
CC   determining whether a CS4-CFA/I family protein/antibody complex has
CC   formed. It can be included in compositions with a carrier appropriate
CC   for application to bacteria-containing growth media, optionally with a
CC   tag e.g. a fluorescing agent or colorometric tag, to assist
CC   identification of the complex. It can also be included in compositions
CC   with pharmaceutically acceptable carriers, especially saline, useful for
CC   treating or prophylaxing against illness arising from infection with
CC   bacteria bearing CS4-CFA/I family proteins.
XX
SQ   Sequence   37 AA;

  Query Match             100.0%;  Score 50;  DB 19;  Length 37;
  Best Local Similarity   100.0%;  Pred. No. 0.013;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 PSAVALTYSP 10
           ||||||||||
Db      27 PSAVALTYSP 36
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RESULT 7
AAB06210
ID   AAB06210 standard; peptide; 38 AA.
XX
AC   AAB06210;
XX
DT   22-NOV-2000  (first entry)
XX
DE   Escherichia coli consensus peptide.
XX
KW   E. coli; solid phase conjugate vaccines; bacterial infection;
KW   viral infection; parasitic infection; fungal infection; rickettsiae.
XX
OS   Escherichia coli.
XX
PN   WO200025812-A2.
XX
PD   11-MAY-2000.
XX
PF   29-OCT-1999;   99WO-US25425.
XX
PR   29-OCT-1998;   98US-0106090.
XX
PA   (LEES/) LEES A.
XX
PI   Lees A;
XX
DR   WPI; 2000-365401/31.
XX
PT   Preparation of solid phase vaccine for treating viral, bacterial,
PT   rickettsiae, and fungal diseases, involves adsorbing protein to solid
PT   phase adjuvant and covalently linking carbohydrate to adsorbed protein
PT   -
XX
PS   Example 10; Page 25; 40pp; English.
XX
CC   The present sequence is a consensus peptide sequence from Escherichia
CC   coli. It was used in the production of solid phase conjugate vaccines,
CC   which can be used to treat and produce antibodies against bacterial,
CC   viral, parasitic or fungal infections.
XX
SQ   Sequence   38 AA;

  Query Match             100.0%;  Score 50;  DB 21;  Length 38;
  Best Local Similarity   100.0%;  Pred. No. 0.014;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 PSAVALTYSP 10
           ||||||||||
Db      27 PSAVALTYSP 36
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RESULT 8
AAW17904
ID   AAW17904 standard; peptide; 36 AA.
XX
AC   AAW17904;
XX
DT   25-JUL-1997  (first entry)
XX
DE   Immunogenic consensus peptide 2 against E.coli CS4-CFA/1.
XX
KW   Immunisation; fimbrial protein; colonisation factor antigen;
KW   antibody.
XX
OS   Escherichia coli.
OS   Synthetic.
XX
PN   WO9638171-A1.
XX
PD   05-DEC-1996.
XX
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PF 03-JUN-1996; 96WO-US08730.
XX
PR 02-JUN-1995; 95US-0460617.
XX
PA (USSA) US DEPT OF THE ARMY.
XX
PI Anderson J, Carter JM, Cassels F;
XX
DR WPI; 1997-034101/03.
XX
PT New consensus peptide from fimbrial proteins of the E. coli family
PT CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
PT against infection by bacteria of this family
XX
PS Disclosure; Page 3; 17pp; English.
XX
CC The present sequence is consensus peptide 2 sequence that was constructed
CC from the highly conserved N-terminal region of fimbrial proteins from
CC CFA/I, CS1, CS2, CS4, CS17 and PCF 0166, and was shown to generate
CC antibodies against all members of the family. The consensus sequence
CC also contains both B and T cell epitopes. It can be used to immunise
CC against disease caused by enterotoxic E. coli of the family CS4-CFA/I.
CC Also antibodies raised against the E. coli CS4-CFA/I family can be
CC used as diagnostic reagents to identify antigens.
XX
SQ Sequence 36 AA;

Query Match 88.0%; Score 44; DB 18; Length 36;
Best Local Similarity 80.0%; Pred. No. 0.19;
Matches 8; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PSAVALTYSP 10
|::|||||||
Db 26 PASVALTYSP 35

RESULT 9
AAW24222
ID AAW24222 standard; peptide; 37 AA.
XX
AC AAW24222;
XX
DT 17-MAR-1998 (first entry)
XX
DE Peptide fragment from Escherichia coli CS1.
XX
KW T-lymphocyte epitope; diagnosis; antigen; infectious disease;
KW delayed-type hypersensitivity assay; vaccine development.
XX
OS Escherichia coli.
XX
PN WO9727462-A2.
XX
PD 31-JUL-1997.
XX
PF 27-JAN-1997; 97WO-US01084.
XX
PR 26-JAN-1996; 96US-0010679.
XX
PA (USSA) US DEPT ARMY GOVERNMENT US ARMY MEDICAL.
XX
PI Brix DL, Sitz KV;
XX
DR WPI; 1997-393814/36.
XX
PT Peptide fragments containing antigen epitope(s) used to trace
PT diseases - used in a delayed-type hypersensitivity assay, for in
PT vivo mapping of human T-lymphocyte epitope(s) e.g. for diagnosis,
PT vaccine development etc
XX
PS Disclosure; Page 10; 14pp; English.
XX
CC Peptides AAW24221-6 from Escherichia coli may be used in the method
CC of the invention which relates to the tracing of sources of infectious
CC diseases. The method comprises preparing a short (9-50 amino acid)
CC peptide containing at least one non-conserved epitope of an organism,
CC injecting a composition containing the peptide intradermally into a test
CC subject in a delayed-type hypersensitivity (DTH) assay and observing the
CC injection site at intervals for induration. The method allows the
CC T-lymphocyte epitopes of a large antigen to be determined in vivo in
CC humans. The method is useful in medicine e.g. in diagnosis, monitoring
CC and treatment design for infectious disease exposure, active autoimmune
CC disease, allergic diseases and malignancy. It is especially useful for
CC tracing infectious diseases e.g HIV, particularly when a sequence is
CC present only in certain strains of an organism, and developing suitable
CC vaccines. Vaccinated individuals can also be tested to verify protection
CC against a particular strain. The method allows in vivo mapping of
CC T-lymphocyte epitopes, not previously possible. The method is simpler,
CC more rapid and more sensitive. It can also be applied in a variety of
CC environments e.g. undeveloped regions since specialist equipment is not
CC required.
XX
SQ Sequence 37 AA;

Query Match 88.0%; Score 44; DB 18; Length 37;
Best Local Similarity 80.0%; Pred. No. 0.2;
Matches 8; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PSAVALTYSP 10
|::|||||||
Db 26 PNSVALTYSP 35

RESULT 10
AAW17906
ID AAW17906 standard; peptide; 37 AA.
XX
AC AAW17906;
XX
DT 25-JUL-1997 (first entry)
XX
DE Peptide CS1 from denatured protein subunits of E.coli fimbriae.
XX
KW Immunisation; fimbrial protein; colonisation factor antigen;
KW antibody.
XX
OS Escherichia coli.
OS Synthetic.
XX
PN WO9638171-A1.
XX
PD 05-DEC-1996.
XX
PF 03-JUN-1996; 96WO-US08730.
XX
PR 02-JUN-1995; 95US-0460617.
XX
PA (USSA) US DEPT OF THE ARMY.
XX
PI Anderson J, Carter JM, Cassels F;
XX
DR WPI; 1997-034101/03.
XX
PT New consensus peptide from fimbrial proteins of the E. coli family
PT CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
PT against infection by bacteria of this family
XX
PS Disclosure; Page 4; 17pp; English.
XX
CC The present sequence is a peptide from the denatured protein subunit
CC of fimbriae from CS1. Many of the denatured proteins give rise to
CC antibodies that are reactive with proteins of other strains as shown
CC by precipitation studies on nitrocellulose. They are also reactive
CC with surface antigens of the fimbriae as shown by agglutination
CC of organisms. They can be used to immunise against disease caused by
CC enterotoxic E. coli of the family CS4-CFA/I. Also antibodies raised

```
CC   against the E. coli CS4-CFA/I family can be used as diagnostic reagents
CC   to identify antigens.
XX
SQ   Sequence   37 AA;

  Query Match             88.0%;  Score 44;  DB 18;  Length 37;
  Best Local Similarity   80.0%;  Pred. No. 0.2;
  Matches    8;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 PSAVALTYSP 10
           |:: ||||||
Db      26 PNSVALTYSP 35


RESULT 11
AAW17912
ID   AAW17912 standard; peptide; 148 AA.
XX
AC   AAW17912;
XX
DT   25-JUL-1997  (first entry)
XX
DE   Peptide CS1 from denatured protein subunits of E.coli fimbriae.
XX
KW   Immunisation; fimbrial protein; colonisation factor antigen;
KW   antibody.
XX
OS   Escherichia coli.
OS   Synthetic.
XX
PN   WO9638171-A1.
XX
PD   05-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US08730.
XX
PR   02-JUN-1995;   95US-0460617.
XX
PA   (USSA ) US DEPT OF THE ARMY.
XX
PI   Anderson J,  Carter JM,  Cassels F;
XX
DR   WPI; 1997-034101/03.
XX
PT   New consensus peptide from fimbrial proteins of the E. coli family
PT   CS4 CFA/I - and denatured fimbrial proteins, used for immunisation
PT   against infection by bacteria of this family
XX
PS   Disclosure; Page 4; 17pp; English.
XX
CC   The present sequence is a peptide from the denatured protein subunit
CC   of fimbriae from CS1. Many of the denatured proteins give rise to
CC   antibodies that are reactive with proteins of other strains as shown
CC   by precipitation studies on nitrocellulose. They are also reactive
CC   with surface antigens of the fimbriae as shown by agglutination
CC   of organisms. They can be used to immunise against disease caused by
CC   enterotoxic E. coli of the family CS4-CFA/I. Also antibodies raised
CC   against the E. coli CS4-CFA/I family can be used as diagnostic reagents
CC   to identify antigens.
XX
SQ   Sequence   148 AA;

  Query Match             88.0%;  Score 44;  DB 18;  Length 148;
  Best Local Similarity   80.0%;  Pred. No. 0.94;
  Matches    8;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 PSAVALTYSP 10
           |::|,|||||
Db      26 PNSVALTYSP 35


RESULT 12
AAR21313
ID   AAR21313 standard; Protein; 171 AA.
XX
AC   AAR21313;
XX
DT   17-MAY-1992  (first entry)
XX
DE   Sequence of a major CS1 pilin antigen of enterotoxigenic
DE   Escherichia coli encoded by coo A gene.
XX
KW   Antigen; vaccine; diarrhoea; probe.
XX
OS   Escherichia coli LMC10.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..23
FT                   /label= signal
XX
PN   WO9201703-A.
XX
PD   06-FEB-1992.
XX
PF   23-JUL-1991;   91WO-US05217.
XX
PR   24-JUL-1990;   90US-0557535.
XX
PA   (UYEM-) EMORY UNIV.
XX
PI   Scott JR,  Perezcasal J;
XX
DR   WPI; 1992-064882/08.
DR   N-PSDB; AAQ20529.
XX
PT   Major CSI pilin antigen of enterotoxigenic Escherichia coli -
PT   with probes binding to DNA encoding the antigen, useful in
PT   diagnosis of enterotoxigenic E.coli and as vaccine
XX
PS   Example; Fig 2; 31pp; English.
XX
CC   The inventors claim a DNA sequence (AAQ20529), a vector, transformed
CC   microbe, process, a probe, a vaccine and the major CS1 pilin antigen
CC   itself.  The vector is selected from the recombinant plasmids pEU600,
CC   pEU605 and pEU452.  The host cell is E. coli K12 strain JM83.  The
CC   probe comprises the 318 bp internal HhaI digestion prod. of AAQ20529.
XX
SQ   Sequence   171 AA;

  Query Match             88.0%;  Score 44;  DB 13;  Length 171;
  Best Local Similarity   80.0%;  Pred. No. 1.1;
  Matches    8;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 PSAVALTYSP 10
           |::|||||||
Db      49 PNSVALTYSP 58


RESULT 13
AAW24223
ID   AAW24223 standard; peptide; 37 AA.
XX
AC   AAW24223;
XX
DT   17-MAR-1998  (first entry)
XX
DE   Peptide fragment from Escherichia coli CS4.
XX
KW   T-lymphocyte epitope; diagnosis; antigen; infectious disease;
KW   delayed-type hypersensitivity assay; vaccine development.
XX
OS   Escherichia coli.
XX
PN   WO9727462-A2.
XX
PD   31-JUL-1997.
```

XX
PF 27-JAN-1997; 97WO-US01084.
XX
PR 26-JAN-1996; 96US-0010679.
XX
PA (USSA) US DEPT ARMY GOVERNMENT US ARMY MEDICAL.
XX
PI Brix DL, Sitz KV;
XX
DR WPI; 1997-393814/36.
XX
PT Peptide fragments containing antigen epitope(s) used to trace
PT diseases - used in a delayed-type hypersensitivity assay, for in
PT vivo mapping of human T-lymphocyte epitope(s) e.g. for diagnosis,
PT vaccine development etc
XX
PS Disclosure; Page 10; 14pp; English.
XX
CC Peptides AAW24221-6 from Escherichia coli may be used in the method
CC of the invention which relates to the tracing of sources of infectious
CC diseases. The method comprises preparing a short (9-50 amino acid)
CC peptide containing at least one non-conserved epitope of an organism,
CC injecting a composition containing the peptide intradermally into a test
CC subject in a delayed-type hypersensitivity (DTH) assay and observing the
CC injection site at intervals for induration. The method allows the
CC T-lymphocyte epitopes of a large antigen to be determined in vivo in
CC humans. The method is useful in medicine e.g. in diagnosis, monitoring
CC and treatment design for infectious disease exposure, active autoimmune
CC disease, allergic diseases and malignancy. It is especially useful for
CC tracing infectious diseases e.g HIV, particularly when a sequence is
CC present only in certain strains of an organism, and developing suitable
CC vaccines. Vaccinated individuals can also be tested to verify protection
CC against a particular strain. The method allows in vivo mapping of
CC T-lymphocyte epitopes, not previously possible. The method is simpler,
CC more rapid and more sensitive. It can also be applied in a variety of
CC environments e.g. undeveloped regions since specialist equipment is not
CC required.
XX
SQ Sequence 37 AA;

Query Match 84.0%; Score 42; DB 18; Length 37;
Best Local Similarity 80.0%; Pred. No. 0.48;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 PSAVALTYSP 10
|:|| |||||
Db 26 PTAVELTYSP 35

RESULT 14
AAW17907
ID AAW17907 standard; peptide; 37 AA.
XX
AC AAW17907;
XX
DT 25-JUL-1997 (first entry)
XX
DE Peptide CS4 from denatured protein subunits of E.coli fimbriae.
XX
KW Immunisation; fimbrial protein; colonisation factor antigen;
KW antibody.
XX
OS Escherichia coli.
OS Synthetic.
XX
PN WO9638171-A1.
XX
PD 05-DEC-1996.
XX
PF 03-JUN-1996; 96WO-US08730.
XX
PR 02-JUN-1995; 95US-0460617.
XX
PA (USSA) US DEPT OF THE ARMY.
XX
PI Anderson J, Carter JM, Cassels F;
XX
DR WPI; 1997-034101/03.
XX
PT New consensus peptide from fimbrial proteins of the E. coli family
PT CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
PT against infection by bacteria of this family
XX
PS Disclosure; Page 4; 17pp; English.
XX
CC The present sequence is a peptide from the denatured protein subunit
CC of fimbriae from CS4. Many of the denatured proteins give rise to
CC antibodies that are reactive with proteins of other strains as shown
CC by precipitation studies on nitrocellulose. They are also reactive
CC with surface antigens of the fimbriae as shown by agglutination
CC of organisms. They can be used to immunise against disease caused by
CC enterotoxic E. coli of the family CS4-CFA/I. Also antibodies raised
CC against the E. coli CS4-CFA/I family can be used as diagnostic reagents
CC to identify antigens.
XX
SQ Sequence 37 AA;

Query Match 84.0%; Score 42; DB 18; Length 37;
Best Local Similarity 80.0%; Pred. No. 0.48;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 PSAVALTYSP 10
|:|| |||||
Db 26 PTAVELTYSP 35

RESULT 15
AAW17913
ID AAW17913 standard; peptide; 117 AA.
XX
AC AAW17913;
XX
DT 25-JUL-1997 (first entry)
XX
DE Peptide CS4 from denatured protein subunits of E.coli fimbriae.
XX
KW Immunisation; fimbrial protein; colonisation factor antigen;
KW antibody.
XX
OS Escherichia coli.
OS Synthetic.
XX
PN WO9638171-A1.
XX
PD 05-DEC-1996.
XX
PF 03-JUN-1996; 96WO-US08730.
XX
PR 02-JUN-1995; 95US-0460617.
XX
PA (USSA) US DEPT OF THE ARMY.
XX
PI Anderson J, Carter JM, Cassels F;
XX
DR WPI; 1997-034101/03.
XX
PT New consensus peptide from fimbrial proteins of the E. coli family
PT CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
PT against infection by bacteria of this family
XX
PS Disclosure; Page 4; 17pp; English.
XX
CC The present sequence is a peptide from the denatured protein subunit
CC of fimbriae from CS4. Many of the denatured proteins give rise to
CC antibodies that are reactive with proteins of other strains as shown
CC by precipitation studies on nitrocellulose. They are also reactive

```
CC   with surface antigens of the fimbriae as shown by agglutination
CC   of organisms. They can be used to immunise against disease caused by
CC   enterotoxic E. coli of the family CS4-CFA/I. Also antibodies raised
CC   against the E. coli CS4-CFA/I family can be used as diagnostic reagents
CC   to identify antigens.
XX
SQ   Sequence   117 AA;

  Query Match             84.0%;  Score 42;  DB 18;  Length 117;
  Best Local Similarity   80.0%;  Pred. No. 1.8;
  Matches    8;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1 PSAVALTYSP 10
           |:.| |||||
Db      26 PTAVELTYSP 35


RESULT 16
AAM50340
ID   AAM50340 standard; Protein; 167 AA.
XX
AC   AAM50340;
XX
DT   18-FEB 2002  (first entry)
XX
DE   ETEC CS4 pilus CsaB fimbrial structural protein.
XX
KW   CS4 pilus; enterotoxigenic; ETEC; csa operon; CsaB; fimbrial;
KW   vaccine; diarrhoea; antibacterial; antidiarrheic.
XX
OS   Escherichia coli.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..23
FT                   /label= Signal_peptide
FT   Protein         24..167
FT                   /label= Mature_protein
XX
PN   WO200181582 A2.
XX
PD   01 NOV 2001.
XX
PF   20-APR-2001; 2001WO US12914.
XX
PR   20-APR-2000; 2000US-198686P.
XX
PA   (UYMA ) UNIV MARYLAND BALTIMORE.
XX
PI   Altboum Z,  Levine MM,  Barry EM;
XX
DR   WPI; 2002 049280/06.
DR   N-PSDB; AAI70760, AAI70780.
XX
PT   New nucleotide sequence, useful as immunogenic agent for generating
PT   immune response against recombinant product of the operon, comprises
PT   csa operon which encodes enterotoxigenic Escherichia coli-CS4 pili -
XX
PS   Claim 4; Page 50; 81pp; English.
XX
CC   The present sequence is that of fimbrial structural protein CsaB
CC   of enterotoxigenic Escherichia coli (ETEC) strain E11881A.  CsaB is
CC   encoded by the csaB gene (see AAI70760) of the E. coli E11881A csa
CC   operon.  This operon has 5 contiguous genes, csaA-csaE, which encode
CC   the synthesis of ETEC-CS4 pili.  It has been expressed in attenuated
CC   Shigella strain CVD1204 guaBA, constructing the Shigella expressing
CC   CS4 fimbriae vaccine strain CVD1204 (pGA2-CS4).  The CsaB protein
CC   has a calculated mol.wt. of 17343.9 and a theoretical pI of 6.56.
CC   It shares homology with other ETEC fimbriae proteins.  Recombinant
CC   CsaA-CsaE polypeptides are used in claimed immunogenic compositions
CC   to generate an immune response in a subject.  These prevent ETEC
CC   colonisation, and hence protect against diarrhoea.
XX
SQ   Sequence   167 AA;

  Query Match             84.0%;  Score 42;  DB 23;  Length 167;
  Best Local Similarity   80.0%;  Pred. No. 2.6;
  Matches    8;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1 PSAVALTYSP 10
           |:|| |||||
Db      49 PTAVELTYSP 58


RESULT 17
AAR28320
ID   AAR28320 standard; peptide; 10 AA.
XX
AC   AAR28320;
XX
DT   24-MAR-1993  (first entry)
XX
DE   Antigenic synthetic peptide contg. T-cell epitope 26.
XX
KW   CFA/I pilus protein; vaccine; bacterial; viral; infection; mammal.
XX
OS   Synthetic.
XX
PN   WO9219263-A.
XX
PD   12-NOV-1992.
XX
PF   13-MAY-1991;   91WO-US03328.
XX
PR   24-APR-1991;   91US-0690485.
XX
PA   (USSA ) US SEC OF ARMY.
XX
PI   Boedeker EC,  Cassels FJ,  Jarboe D,  Reid RH,  Setterstrom JA;
XX
DR   WPI; 1992-398530/48.
XX
PT   Protection against entero-pathogenic organisms - comprises oral
PT   admin. of compsn. consisting of synthetic peptide contg. CFA-I
PT   pilus protein T-cell epitope(s) and/or B-cell epitope(s)
PT   encapsulated in biodegradable polymeric matrix
XX
PS   Claim 19; Page 76; 121pp; English.
XX
CC   The sequence is that of an antigenic synthetic peptide contg. CFA/I
CC   pilus protein T-cell epitopes which may be encapsulated within a
CC   biodegradable polymeric matrix consisting of poly(DL-lactide-co-
CC   glycolide) having a relative ratio between the amt. of lactide and
CC   glycolide components within the range of 48:52 to 52:48 for use as a
CC   vaccine for the immunisation of a human or other mammal against
CC   infection by enteropathogenic organisms. This provides extremely
CC   effective protection against bacterial or viral infections in the
CC   tissue of a mammal. It protects against bacteria including Salmonella
CC   typhi, Shigella sonnei, S. flexneni, S.dysenteriae, S. boydii,
CC   E.coli, Vibrio cholera, Yersinia, staphylococcus, clostridium and
CC   campylobacter. Viruses protected against include hepatitis A,
CC   rotaviruses, polio virus, HIV, Herpes simplex virus types 1 and 2,
CC   Varicella-Zoster virus, Epstein-Barr virus and cytomegaloviruses
CC   See also AAR28315-R28334.
XX
SQ   Sequence   10 AA;

  Query Match             80.0%;  Score 40;  DB 13;  Length 10;
  Best Local Similarity   80.0%;  Pred. No. 0.26;
  Matches    8;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1 PSAVALTYSP 10
           |||| | |||
Db       1 PSAVKLAYSP 10


RESULT 18
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```
AAW17905
ID   AAW17905 standard; peptide; 37 AA.
XX
AC   AAW17905;
XX
DT   25-JUL-1997  (first entry)
XX
DE   Peptide CFA/I from denatured protein subunits of E.coli fimbriae.
XX
KW   Immunisation; fimbrial protein; colonisation factor antigen;
KW   antibody.
XX
OS   Escherichia coli.
OS   Synthetic.
XX
PN   WO9638171-A1.
XX
PD   05-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US08730.
XX
PR   02-JUN-1995;   95US-0460617.
XX
PA   (USSA ) US DEPT OF THE ARMY.
XX
PI   Anderson J,  Carter JM,  Cassels F;
XX
DR   WPI; 1997-034101/03.
XX
PT   New consensus peptide from fimbrial proteins of the E. coli family
PT   CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
PT   against infection by bacteria of this family
XX
PS   Disclosure; Page 4; 17pp; English.
XX
CC   The present sequence is a peptide from the denatured protein subunit
CC   of fimbriae from CFA/I. Many of the denatured proteins give rise to
CC   antibodies that are reactive with proteins of other strains as shown
CC   by precipitation studies on nitrocellulose. They are also reactive
CC   with surface antigens of the fimbriae as shown by agglutination
CC   of organisms. They can be used to immunise against disease caused by
CC   enterotoxic E. coli of the family CS4-CFA/I. Also antibodies raised
CC   against the E. coli CS4-CFA/I family can be used as diagnostic reagents
CC   to identify antigens.
XX
SQ   Sequence   37 AA;

  Query Match             80.0%;  Score 40;  DB 18;  Length 37;
  Best Local Similarity   80.0%;  Pred. No. 1.2;
  Matches    8;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1 PSAVALTYSP 10
           |||| | |||
Db      26 PSAVKLAYSP 35


RESULT 19
AAW17911
ID   AAW17911 standard; peptide; 147 AA.
XX
AC   AAW17911;
XX
DT   25-JUL-1997  (first entry)
XX
DE   Peptide CFA/I from denatured protein subunits of E.coli fimbriae.
XX
KW   Immunisation; fimbrial protein; colonisation factor antigen;
KW   antibody.
XX
OS   Escherichia coli.
OS   Synthetic.
XX
PN   WO9638171-A1.
XX
PD   05-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US08730.
XX
PR   02-JUN-1995;   95US-0460617.
XX
PA   (USSA ) US DEPT OF THE ARMY.
XX
PI   Anderson J,  Carter JM,  Cassels F;
XX
DR   WPI; 1997-034101/03.
XX
PT   New consensus peptide from fimbrial proteins of the E. coli family
PT   CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
PT   against infection by bacteria of this family
XX
PS   Disclosure; Page 4; 17pp; English.
XX
CC   The present sequence is a peptide from the denatured protein subunit
CC   of fimbriae from CFA/I. Many of the denatured proteins give rise to
CC   antibodies that are reactive with proteins of other strains as shown
CC   by precipitation studies on nitrocellulose. They are also reactive
CC   with surface antigens of the fimbriae as shown by agglutination
CC   of organisms. They can be used to immunise against disease caused by
CC   enterotoxic E. coli of the family CS4-CFA/I. Also antibodies raised
CC   against the E. coli CS4-CFA/I family can be used as diagnostic reagents
CC   to identify antigens.
XX
SQ   Sequence   147 AA;

  Query Match             80.0%;  Score 40;  DB 18;  Length 147;
  Best Local Similarity   80.0%;  Pred. No. 5.6;
  Matches    8;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1 PSAVALTYSP 10
           |||| | |||
Db      26 PSAVKLAYSP 35


RESULT 20
AAW38341
ID   AAW38341 standard; Protein; 170 AA.
XX
AC   AAW38341;
XX
DT   27-MAR-1998  (first entry)
XX
DE   E. coli colonisation factor antigen CFA1.
XX
KW   Bacterial colonisation; colonisation factor antigen; CFA1;
KW   enterotoxic Escherichia coli; vaccine; diagnosis; research.
XX
OS   Escherichia coli.
XX
PN   US5698416-A.
XX
PD   16-DEC-1997.
XX
PF   02-JUN-1995;   95US-0460739.
XX
PR   02-JUN-1995;   95US-0460739.
XX
PA   (USSA ) US SEC OF ARMY.
XX
PI   Bell BA,  Cassels FJ,  Wolf MK;
XX
DR   WPI; 1998-051486/05.
DR   N-PSDB; AAT96059.
XX
PT   Production of bacterial colonisation factor protein - by expression
PT   under control of heat-inducible promoter
XX
```

PS Example 2; Columns 15-18; 11pp; English.
XX
CC Production of a protein that affects bacterial colonisation,
CC comprises inoculating a broth containing tryptone and yeast extract
CC with enteric bacteria containing a DNA sequence encoding the
CC protein under the control of a temperature regulated promoter,
CC culturing the bacteria, removing the bacteria from the medium and
CC recovering the protein. The method is used especially for producing
CC the colonisation factor antigen CFA1 of enterotoxic E. coli, i.e.
CC the antigen denoted by the present sequence, which may be used in
CC vaccines or for diagnostic or research purposes. Growing the
CC bacteria at low temperature until the late logarithmic phase
CC increases the yield of the protein.
XX
SQ Sequence 170 AA;

Query Match 80.0%; Score 40; DB 19; Length 170;
Best Local Similarity 80.0%; Pred. No. 6.6;
Matches 8; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1 PSAVALTYSP 10
|||| | |||
Db 49 PSAVKLAYSP 58

RESULT 21
AAW53297
ID AAW53297 standard; peptide; 8 AA.
XX
AC AAW53297;
XX
DT 03-JUL-1998 (first entry)
XX
DE CS4 CFA/I family specific antibody responsive peptide #32.
XX
KW Escherichia coli; CS4-CFA/I family; antibody; immunisation; ETEC;
KW enterotoxigenic; immune response.
XX
OS Synthetic.
OS Escherichia coli.
XX
PN WO9805348 A1.
XX
PD 12 FEB 1998.
XX
PF 01 AUG 1997; 97WO-US13476.
XX
PR 05 AUG 1996; 96US-0023145.
PR 02-AUG-1996; 96US-0023076.
XX
PA (USSA) US DEPT OF THE ARMY.
XX
PI Cassels F, Loomis-Price L;
XX
DR WPI; 1998-145348/13.
XX
PT Peptide(s) responsive to antibodies against Escherichia coli
PT CS4-CFA/I family proteins - are subunits of consensus peptide useful
PT for immunisation, and consequent antibody compositions, useful in
PT assays and treatment of infection
XX
PS Claim 2; Page 14; 19pp; English.
XX
CC The present sequence represents a peptide responsive to antibodies
CC against Escherichia coli CS4-CFA/I family proteins. The peptide and
CC compositions containing such peptides are useful for immunisation to
CC raise antibodies to organisms producing the CS4-CFA/I family of
CC proteins. The CS4-CFA/I family belong to the enterotoxigenic (ETEC)
CC class of Escherichia coli, one of five classes of E. coli causing
CC diarrhoea. ETEC are the most common class and cause high infant
CC mortality and illness in adult travellers in developing countries. The
CC peptides are also useful to determine whether individual animals have
CC antibodies to ETEC E. coli. The antibody compositions can be used in
CC assays to detect organisms bearing the CS4-CFA/I family proteins, in
CC which a culture of organisms is contacted with the composition for
CC sufficient time for interaction to occur, and the culture is examined
CC to determine if a CS4-CFA/I family protein/antibody complex has formed.
CC The antibody compositions can also be used to treat, or immunise a
CC susceptible host against, illness arising from infection with bacteria
CC bearing CS4-CFA/I family proteins, by administering a bacteria
CC agglutinating effective amount, optionally with an adjuvant.
XX
SQ Sequence 8 AA;

Query Match 78.0%; Score 39; DB 19; Length 8;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PSAVALTY 8
||||||||
Db 1 PSAVALTY 8

RESULT 22
AAW53299
ID AAW53299 standard; peptide; 8 AA.
XX
AC AAW53299;
XX
DT 03-JUL-1998 (first entry)
XX
DE CS4-CFA/I family specific antibody responsive peptide #34.
XX
KW Escherichia coli; CS4-CFA/I family; antibody; immunisation; ETEC;
KW enterotoxigenic; immune response.
XX
OS Synthetic.
OS Escherichia coli.
XX
PN WO9805348-A1.
XX
PD 12-FEB-1998.
XX
PF 01-AUG-1997; 97WO-US13476.
XX
PR 05-AUG-1996; 96US-0023145.
PR 02-AUG-1996; 96US-0023076.
XX
PA (USSA) US DEPT OF THE ARMY.
XX
PI Cassels F, Loomis-Price L;
XX
DR WPI; 1998-145348/13.
XX
PT Peptide(s) responsive to antibodies against Escherichia coli
PT CS4-CFA/I family proteins - are subunits of consensus peptide useful
PT for immunisation, and consequent antibody compositions, useful in
PT assays and treatment of infection
XX
PS Claim 2; Page 14; 19pp; English.
XX
CC The present sequence represents a peptide responsive to antibodies
CC against Escherichia coli CS4-CFA/I family proteins. The peptide and
CC compositions containing such peptides are useful for immunisation to
CC raise antibodies to organisms producing the CS4-CFA/I family of
CC proteins. The CS4-CFA/I family belong to the enterotoxigenic (ETEC)
CC class of Escherichia coli, one of five classes of E. coli causing
CC diarrhoea. ETEC are the most common class and cause high infant
CC mortality and illness in adult travellers in developing countries. The
CC peptides are also useful to determine whether individual animals have
CC antibodies to ETEC E. coli. The antibody compositions can be used in
CC assays to detect organisms bearing the CS4-CFA/I family proteins, in
CC which a culture of organisms is contacted with the composition for
CC sufficient time for interaction to occur, and the culture is examined
CC to determine if a CS4-CFA/I family protein/antibody complex has formed.
CC The antibody compositions can also be used to treat, or immunise a

CC susceptible host against, illness arising from infection with bacteria
CC bearing CS4-CFA/I family proteins, by administering a bacteria-
CC agglutinating effective amount, optionally with an adjuvant.
XX
SQ Sequence 8 AA;

Query Match 78.0%; Score 39; DB 19; Length 8;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 3 AVALTYSP 10
||||||||
Db 1 AVALTYSP 8

RESULT 23
AAO09916
ID AAO09916 standard; Protein; 55 AA.
XX
AC AAO09916;
XX
DT 06-NOV-2001 (first entry)
XX
Human polypeptide SEQ ID NO 23808.
XX
KW Human; cytokine; cell proliferation; cell differentiation; gene therapy;
KW vaccine; peptide therapy; stem cell growth factor; haematopoiesis;
KW tissue growth factor; immunomodulatory; cancer; leukaemia;
KW nervous system disorders; arthritis; inflammation.
XX
OS Homo sapiens.
XX
PN WO200164835-A2.
XX
PD 07-SEP-2001.
XX
PF 26-FEB-2001; 2001WO-US04927.
XX
PR 28-FEB-2000; 2000US-0515126.
PR 18-MAY-2000; 2000US-0577409.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Tang YT, Liu C, Drmanac RT;
XX
DR WPI; 2001-514838/56.
DR N-PSDB; AAI89847.
XX
PT Isolated nucleic acids and polypeptides, useful for preventing
PT diagnosing and treating e.g. leukaemia, inflammation and immune
PT disorders -
XX
Claim 20; SEQ ID NO 23808; 1399pp + Sequence Listing; English.
XX
CC The invention relates to human polynucleotides (AAI79941-AAI93841) and
CC the encoded proteins (AAO00010-AAO13910) that exhibit activity elating to
CC cytokine, cell proliferation or cell differentiation or which may induce
CC production of other cytokines in other cell populations. The
CC polynucleotides and polypeptides are useful in gene therapy, vaccines or
CC peptide therapy. The polypeptides have various cytokine-like activities,
CC e.g. stem cell growth factor activity, haematopoiesis regulating
CC activity, tissue growth factor activity, immunomodulatory activity and
CC activin/inhibin activity and may be useful in the diagnosis and/or
CC treatment of cancer, leukaemia, nervous system disorders, arthritis and
CC inflammation.
CC Note: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 55 AA;

Query Match 78.0%; Score 39; DB 22; Length 55;
Best Local Similarity 70.0%; Pred. No. 2.9;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 PSAVALTYSP 10
| |||||:|
Db 20 PGTVALTYNP 29

RESULT 24
AAM25886
ID AAM25886 standard; Protein; 76 AA.
XX
AC AAM25886;
XX
DT 16-OCT-2001 (first entry)
XX
DE Human protein sequence SEQ ID NO:1401.
XX
KW Human; cancer; ulcer; HIV infection; human immunodeficiency virus;
KW antiinflammatory; antirheumatic; antiarthritic; immunosuppressive;
KW antibacterial; endocrine; cardiant; central nervous system; virucide;
KW anti-HIV; fungicide; antimutagen; cardiovascular; antianaemic; anaemia;
KW antiaggregant; haemostatic; vulnerary; antiulcer; osteopathic; eczema;
KW dermatological; antiallergic; antiasthmatic; antidiabetic; cytostatic;
KW neuroprotective; antidepressant; nootropic; antiparkinsonian; infection;
KW immunostimulant; gene therapy; antisense therapy; vaccine; inflammation;
KW antianaphylactic; rheumatoid arthritis; septic shock; pancreatitis;
KW cardiac dysfunction; neuropathology; cardiac anaphylaxis; autoimmunity;
KW genetic disease; haematopoietic disorder; platelet disorder; asthma;
KW thrombocytopaenia; osteoporosis; severe combined immunodeficiency;
KW allergic rhinitis; diabetes; multiple sclerosis; depression;
KW Alzheimer's disease; Parkinson's disease; neurodegenerative disorder;
KW neurological disorder.
XX
OS Homo sapiens.
XX
PN WO200153455-A2.
XX
PD 26-JUL-2001.
XX
PF 22-DEC-2000; 2000WO-US35017.
XX
PR 23-DEC-1999; 99US-0471275.
PR 21-JAN-2000; 2000US-0488725.
PR 25-APR-2000; 2000US-0552317.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Tang YT, Liu C, Drmanac RT;
XX
DR WPI; 2001-457603/49.
DR N-PSDB; AAH99827.
XX
PT Isolated human polynucleotides encoding polypeptides, useful for the
PT treatment and diagnosis of e.g. cancer, ulcers and HIV infection -
XX
PS Claim 20; Page 286; 1217pp; English.
XX
CC AAH99166 to AAH99904 encode the human proteins given in AAM25225 to
CC AAM25963. The proteins can have activities based on the tissues and
CC cells they are expressed in, such as: antiinflammatory; antirheumatic;
CC antiarthritic; immunosuppressive; antibacterial; endocrine; cardiant;
CC central nervous system; virucide; anti-HIV; fungicide; antimutagen;
CC cardiovascular; antianaemic; antiaggregant; haemostatic; vulnerary;
CC antiulcer; osteopathic; dermatological; antiallergic; antiasthmatic;
CC antidiabetic; cytostatic; neuroprotective; antidepressant; nootropic;
CC antiparkinsonian; and immunostimulant. The proteins and polynucleotides
CC encoding them can be used in gene therapy, antisense therapy and vaccine
CC production, The proteins and polynucleotides are useful for screening for
CC agonists or antagonists of a protein and for the treatment and diagnosis
CC of disorders associated with the activity of a protein e.g. inflammation,
CC rheumatoid arthritis, septic shock, pancreatitis, cardiac dysfunction,
CC neuropathology, cardiac anaphylaxis, viral, bacterial, HIV and fungal
CC infections, autoimmunity, genetic diseases, haematopoietic disorders,

CC anaemia, platelet disorders, thrombocytopaenia, wounds, burns, ulcers,
CC osteoporosis, severe combined immunodeficiency, eczema, allergic
CC rhinitis, asthma, diabetes, cancer, multiple sclerosis, depression,
CC Alzheimer's disease, Parkinson's disease, neurodegenerative and
CC neurological disorders.
XX
SQ Sequence 76 AA;

Query Match 78.0%; Score 39; DB 22; Length 76;
Best Local Similarity 80.0%; Pred. No. 4.1;
Matches 8; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1 PSAVALTYSP 10
|| ||| ||:|
Db 50 PGAVAHTYSP 59

RESULT 25
AAU42167
ID AAU42167 standard; Protein; 86 AA.
XX
AC AAU42167;
XX
DT 27-FEB-2002 (first entry)
XX
DE Propionibacterium acnes immunogenic protein #3063.
XX
KW SAPHO syndrome; synovitis; acne; pustulosis; hypertosis; osteomyelitis;
KW uveitis; endophthalmitis; bone; joint; central nervous system; ELISA;
KW inflammatory lesion; acne vulgaris; enzyme linked immunosorbent assay;
KW dermatological; osteopathic; neuroprotectant.
XX
OS Propionibacterium acnes.
XX
PN WO200181581-A2.
XX
PD 01 NOV 2001.
XX
PF 20 APR-2001; 2001WO-US12865.
XX
PR 21-APR-2000; 2000US-199047P.
PR 02-JUN-2000; 2000US-208841P.
PR 07 JUL 2000; 2000US-216747P.
XX
PA (CORI-) CORIXA CORP.
XX
PI Skeiky YAW, Persing DH, Mitcham JL, Wang SS, Bhatia A;
PI L'maisonneuve J, Zhang Y, Jen S, Carter D;
XX
DR WPI; 2001-616774/71.
DR N-PSDB; AAS59516.
XX
PT Propionibacterium acnes polypeptides and nucleic acids useful for
PT vaccinating against and diagnosing infections, especially useful for
PT treating acne vulgaris -
XX
PS Example 1; SEQ ID No 3362; 1069pp; English.
XX
CC Sequences AAU39105-AAU68017 represent Propionibacterium acnes immunogenic
CC polypeptides. The proteins and their associated DNA sequences are used in
CC the treatment, prevention and diagnosis of medical conditions caused by
CC P. acnes. The disorders include SAPHO syndrome (synovitis, acne,
CC pustulosis, hypertosis and osteomyelitis), uveitis and endophthalmitis.
CC P. acnes is also involved in infections of bone, joints and the central
CC nervous system, however it is particularly involved in the inflammatory
CC lesions associated with acne vulgaris. A method for detecting the
CC presence or absence of P. acnes in a patient comprises contacting a
CC sample with a binding agent that binds to the proteins of the invention
CC and determining the amount of bound protein in the sample. The
CC polypeptides may be used as antigens in the production of antibodies
CC specific for P. acnes proteins. These antibodies can be used to
CC downregulate expression and activity of P. acnes polypeptides and
CC therefore treat P. acnes infections. The antibodies may also be used as
CC diagnostic agents for determining P. acnes presence, for example, by
CC enzyme linked immunosorbent assay (ELISA).
CC Note: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 86 AA;

Query Match 74.0%; Score 37; DB 22; Length 86;
Best Local Similarity 70.0%; Pred. No. 12;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 PSAVALTYSP 10
|| | |:|||
Db 24 PSVVPLSYSP 33

Search completed: January 3, 2003, 13:04:36
Job time : 14.6957 secs